Editorials

Subacute Thyroiditis

SUBACUTE THYROIDITIS, which appears under a variety of synonyms such as de Quervain's or granulomatous thyroiditis, is a self-limited, destructive inflammation of the thyroid gland that is characteristically associated with severe pain and tenderness of that organ during the active phase of the disease. It is thought to be caused by infection with one of various potential viral invaders. Often it is preceded by pharyngitis that subsides a week or two before the symptoms of thyroiditis appear. Sometimes it is a relatively rare complication of common diseases, such as mumps or measles. It is differentiated from acute thyroiditis by its etiology and characteristics more than by its duration. Acute thyroiditis is a nosologic term traditionally reserved for bacterial inflammation of the gland, usually manifested as a localized abscess. Chronic thyroiditis, on the other hand, persists for many months or years, is rarely painful, and is usually due to the development of cytotoxic antibodies directed against a patient's own thyroid cells.

In most patients the diagnosis of subacute thyroiditis is made relatively easily from the history, physical and laboratory findings, and clinical course. In its early phase it is often associated with clinical and laboratory evidence of thyrotoxicosis due to massive destruction of the thyroid gland and the release of intrafollicular thyroglobulin, which is broken down into thyroid hormone extrathyroidally. In recent years, a high frequency of "painless" thyroiditis has been reported, particularly from the American Midwest. This is usually associated with a small or undetectable thyroid enlargement, extremely low thyroid radioiodine uptake, characteristic signs and symptoms of thyrotoxicosis (but without infiltrative ophthalmopathy), undetectable plasma thyroid-stimulating hormone levels, and elevated thyroid hormone concentrations. In some series the incidence of painless thyroiditis has been as high as 15% of all patients with thyrotoxicosis. In most other geographic areas, however, the incidence is much lower. In our experience it is rare.

Some cases of thyrotoxicosis with these laboratory findings in the Midwest have been established as thyrotoxicosis factitia caused by the ingestion of ground beef contaminated with thyroid tissue due to the inadequate training of personnel in a local abattoir. Differentiating thyrotoxicosis due to subacute thyroiditis from thyrotoxicosis factitia is ordinarily easy, however. The plasma thyroglobulin level is elevated in cases of the former because of extreme tissue destruction whereas it is low in cases of the latter; there is no thyroglobulin in thyroxine or triiodothyronine, and the thyroglobulin in desiccated thyroid will be digested in the gastrointestinal tract before absorption.

Nordyke and collaborators report in this issue of the journal their prospective observations over a 22-year period beginning in 1960 on 269 patients with painful subacute thyroiditis.[1] Unfortunately, the clinical course was followed in only 70 of these and there is some uncertainty about the adequacy of the criteria used for diagnosis because laboratory tests were employed only "when needed for confirmation." Most thyroidologists would feel that, although a tender mass in the thyroid area (the authors' only defined "typical" sign) is consistent with subacute thyroiditis, other possibilities exist, including hemorrhage into a preexisting thyroid nodule. A more consistent use of laboratory tests in the study would have alleviated concerns about the diagnosis because a high erythrocyte sedimentation rate and severely depressed thyroid radioiodine uptake are hallmarks of painful subacute thyroiditis and are not characteristic of other possibilities.

Accepting this diagnostic caveat, the data presented by Nordyke and co-workers are of demographic interest. Their general clinic population in Hawaii has a 2:1 white to Japanese ethnic ratio. This same ratio existed in their thyroiditis patients, and there was no racial difference in the sex predominance of female patients, the clinical course, or the onset of the disease in primarily young and middle-aged adults.

Certain differences in the frequency of thyroid disease between patients of Asian and European lineage are well known. Thyrotoxic periodic paralysis is seen much more frequently in the Asian population. Occult differentiated carcinoma of the thyroid found at autopsy in patients who died without clinically diagnosed thyroid disease is much more common in Japanese patients, regardless of their geographic residence, than in white Americans (25% versus 5%, respectively). Yet the death rate from thyroid cancer is comparably low at approximately 0.5 per 100,000 for both groups. Thus, Nordyke and associates have provided important data in documenting that there is no difference in subacute thyroiditis between these ethnic groups living on the same island.

Their observation that there was no seasonal difference in the frequency of newly diagnosed cases is also of interest because other investigators have variously reported that there is or is not a higher incidence of subacute thyroiditis during the summer months. Although one might question whether seasonal differences would be distinct in a mild climate like Hawaii's, no seasonal variation was found in studies from Minnesota and Finland where the periodic climatic contrasts are much more severe.

MONTE A. GREER, MD
Professor of Medicine
Section of Endocrinology
Oregon Health Sciences University
Portland, Oregon

REFERENCE

1. Nordyke RA, Gilbert FI Jr, Lew C: Painful subacute thyroiditis in Hawaii. West J Med 1991 Jul; 155:61-63

Two Medical Worlds—Separate and Unequal

IN AMERICA, we live in two medical worlds, the world that exists for those of us fortunate enough to take advantage of the science we can apply to human health, and the world that exists for the poor, the disenfranchised, the uneducated, and the unlucky. These worlds are separate and unequal, and the differences between them grow daily.

In many New York City municipal hospitals, a patient can wait in the emergency department for 48 hours before being admitted, not waiting for high technology therapy but rather because all the beds are full or there are not enough nurses to staff them. Those persons whose disease process places them at highest risk are given priority. This means if patients are sick but not immediately about to die, they wait.

Long waits exist not only in the emergency departments; they are everywhere. Newly diagnosed patients with the acquired immunodeficiency syndrome, for example, can wait